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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PPD 70035/WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/09111	International filing date (day/month/year) 18.08.2003	Priority date (day/month/year) 22.08.2002
International Patent Classification (IPC) or both national classification and IPC C07D249/04		
Applicant SYNGENTA PARTICIPATIONS AG et al.		



1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

I	<input checked="" type="checkbox"/>	Basis of the opinion
II	<input type="checkbox"/>	Priority
III	<input checked="" type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/>	Lack of unity of invention
V	<input checked="" type="checkbox"/>	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/>	Certain documents cited
VII	<input type="checkbox"/>	Certain defects in the international application
VIII	<input type="checkbox"/>	Certain observations on the international application

Date of submission of the demand 24.02.2004	Date of completion of this report 30.07.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Fanni, S Telephone No. +49 89 2399-8712 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/09111**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-74 as originally filed

Claims, Numbers

1-9 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,
☒ claims Nos. 7

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
☒ no international search report has been established for the said claims Nos. 7

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

- ☐ the written form has not been furnished or does not comply with the Standard.
☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1,6,8
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1,6,8
Industrial applicability (IA)	Yes: Claims	1,6,8
	No: Claims	

2. Citations and explanations

see separate sheet

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ITEM III

It should be noted that, due to the a lack of unity objection, a comprehensive search report has not been established for the present subject matter (cf Item IV below). The present opinion is therefore based only on the claims which have been searched, namely to claims 1-6 and 8-9. Any further reference in the present opinion to "the present subject matter" should be understood as referring to the searched subject matter.

ITEM V

Reference is made to the following documents:

- D1: GB-A-1 215 066
- D2: CH 631 602 A
- D3: EP-A-0 019 742
- D4: US-A-4 233 059

NOVELTY (Article 33(2) PCT)

The present subject matter overlap with D1 (cf claim 1), of which it is considered to be a novel selection on account of the present 1,2,3-triazole moiety.

The present subject matter is novel over D2-D4 on account of the present 4-carbamyl moiety.

INVENTIVE STEP (Article 33(3) PCT)

The present subject matter is directed to 4-carbamyl-1,2,3-triazoles of formula I which have microbicidal activity, in particular fungicidal activity and to intermediate of formula II used in the preparation of compound of formula I.

D1 is considered to be the closest prior art and disclosed fungicidal carbamyl substituted acrylamides derivatives, including 4-carbamyl-1,2,3-triazoles. The subject matter of D1 overlaps with the present subject matter, with derivatives specifically disclosed in D1 which differ from the present compounds of formula I due to the present definitions of R2 and R6 which do not encompass hydrogen (cf table 1, page 6).

On the other hand, D3 and D4 discloses fungicidal 1,2,3-triazoles bearing a carbamyl

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substituent, including both orto-substituted and orto-unsubstituted N-phenyl derivatives (cf D3, column 11, compounds 12-14; D4, claim 1, definition of R1). Fungicidal 1,2,3-triazoles bearing orto-substituted N-phenyl carbamyl substituents are also disclosed in D2 (cf claim 1, definition of R1).

It appears therefore that the present compound of formula I is obtained by minor modifications of a core structure which have already been shown by D1 to have the required activity, and that the skilled person would have known from the teaching of D2-D4 that orto-substituted N-phenyl carbamyl moieties are suitable substituents in fungicidal 1,2,3-triazoles. Thus, an inventive step can be acknowledged for the present subject matter only if it were shown that the present compounds exhibit unexpected properties when compared to the structurally closest prior art compound from the D1, i.e. unexpectedly solve a problem not yet solved. In the absence of empirical data (e.g. comparative tests) which show such properties or effects, an inventive step cannot be acknowledged for the present subject matter.